

## DEPARTMENT OF THE ARMY

OFFICE OF THE ASSISTANT SECRETARY OF THE ARMY ACQUISITION LOGISTICS AND TECHNOLOGY

103 ARMY PENTAGON

WASHINGTON DC 20310-0103

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Dr. James Tegnelia Chair, Army Science Board 2511 Jefferson Davis Highway, Suite 11500 Arlington, Virginia 22202

Dear Dr. Tegnelia:

I request that the Army Science Board (ASB) conduct a study on improvised explosive devices and other asymmetric threats by organizing an ASB Study Panel, "System Solutions for Asymmetric Threats to Security and Stability Operations". This study should address the urgent problems with Improvised Explosive Devices (IED) and other related threats in current Army operations. The study should address, but is not limited to, the Terms of Reference (TOR) described below. Appointed ASB members to this study are to consider the TOR as guidelines and may expand the study to issues considered important to the study. Modifications to the TOR must be addressed with the Chairman of the ASB.

## Background:

Current Army operations span the full spectrum of contingency conflicts. This draft TOR considers both force and population protection in security and stability operations including reconstruction. Iraq, Afghanistan, Kosovo, and Macedonia are recent examples of representative contingency operations. The U.S. Army and Marines have met these challenges with forces that are fully capable of conducting and winning major combat operations (MCO). The IEDs are a major problem to these MCO units resulting in disrupted operations and significant casualties. The ongoing IED effort includes as priorities: (1) Predict, (2) Detect, (3) Prevent, (4) Neutralize and (5) Mitigate. An end-to-end solution requires intelligence, training, battle command, and development of all aspects of Doctrine, Organization, Training, Materiel, Leader Development, Personnel, Facilities (DOTMLPF). Many aspects of the solutions to the IED problem will have applicability to dealing effectively with the chemical, radiological, and biological devices that threaten our forces.

## TOR:

The study should be guided by, but not limited to the following TOR:

a. Assess the IED threat in a "Competititve Strategies" approach that contains several cycles of action-reaction to observed and postulated IEDs and counter-IED systems. Historical records from Afghanistan, Iraq, Vietnam, North Africa, Northern Ireland, and other appropriate conflicts should be examined.

- b. Survey and evaluate technology candidates to effectively counter IEDs including existing, proposed and new system concepts. Competitive strategies cycles should be used to suggest relative value and ranking of solutions.
- c. With the results of Tasks I and II in hand, examine system-of-systems solutions that integrate C4ISR into the solution set. The applicability of these solutions should also be assessed for handling various aspects of the chemical, radiological and biological threat.
- d. Identify special requirements for nonmaterial (M) DOTMLPF capabilities in implementing the system of systems solutions.
- e. Support the Army integrated project team process of the IED Task Force with technology evaluations and other DOTMLPF issues as requested.

Study Sponsorship: The sponsor for this study will be Deputy Chief of Staff for Operations, IED Task Force Director.

Study Duration: Initial study results should be made available in 90 days in the form of briefing materials and executive summaries. The study should be completed in 180 days.

Sincerely,

Claude M. Bolton, Jr.
Assistant Secretary of the Army
(Acquisition, Logistics and Technology)